

DOCKET NO.: UPN0030-100

PATENT

Amendments to the Claims

Claims:

The current status of all claims is listed below and supercedes all previous lists of claims.

1. (original) An isolated nucleic acid molecule that encodes protein comprising at least one epitope of membrane IgE and being free of epitopes of serum IgE.
2. (original) The nucleic acid molecule of claim 1 wherein said protein is membrane IgE or a fragment thereof.
3. (original) The nucleic acid molecule of claim 2 wherein said protein is membrane IgE.
4. (currently amended) The nucleic acid molecule of claim ~~4-3~~ 1 further comprising coding sequence encoding of at least one non-IgE helper T cell epitope.
5. (original) The nucleic acid molecule of claim 4 wherein the coding sequence encoding of at least one non-IgE helper T cell epitope encodes tetanus toxoid Th epitope.
6. (currently amended) The nucleic acid molecule of ~~claims 2-5~~ claim 2 wherein said nucleic acid molecule is a plasmid.
7. (currently amended) The isolated nucleic acid molecule of ~~claims 2-5~~ claim 2 wherein said nucleic acid molecule is incorporated in a viral vector or a bacterial cell.
8. (currently amended) A vaccine composition comprising a nucleic acid molecule of ~~claims 1-7~~ claim 1 and a pharmaceutically acceptable carrier or diluent.
9. (original) A method of treating an individual who has been identified as being susceptible to an IgE mediated allergic disease or condition comprising the step of administering to such an individual a prophylactically effective amount of a vaccine of 8.
10. (original) A method of treating an individual who has been identified as having an IgE mediated allergic disease or condition comprising the step of administering to such an individual a therapeutically effective amount of a vaccine of 8.
11. (original) An isolated protein comprising at least one epitope of membrane IgE and being free of epitopes of serum IgE.

12. (original) The isolated protein of claim 11 wherein said protein is membrane IgE or a fragment thereof.
13. (original) The isolated protein of claim 12 wherein said protein is membrane IgE.
14. (original) The isolated protein of claim 11 further comprising tetanus toxoid Th epitope.
15. (currently amended) The isolated protein of claim ~~11-14~~ 11 wherein said protein is haptenized.
16. (currently amended) The vaccine composition comprising an isolated protein of ~~claims 11-15~~ claim 11 and a pharmaceutically acceptable carrier or diluent.
17. (original) The vaccine composition of claim 16 further comprising tetanus toxoid Th epitope.
18. (currently amended) A vaccine composition comprising killed or inactivated cells or particles that comprise a protein of ~~claims 11-15~~ claim 11 and a pharmaceutically acceptable carrier or diluent.
19. (original) The vaccine of claim 18 wherein said killed or inactivated cells or particles are haptenized.
20. (currently amended) A method of treating an individual who has been identified as being susceptible to an IgE mediated allergic disease or condition comprising the step of administering to such an individual a prophylactically effective amount of a vaccine of ~~claims 16-19~~ claim 16.
21. (currently amended) A method of treating an individual who has been identified as having an IgE mediated allergic disease or condition comprising the step of administering to such an individual a therapeutically effective amount of a vaccine of ~~claims 16-19~~ claim 16.
22. (original) A host cell comprising an isolated nucleic acid molecule that encodes protein comprising at least one epitope of membrane IgE and being free of epitopes of serum IgE.
23. (original) The host cell of claim 22 wherein said protein is membrane IgE or a fragment thereof.
24. (original) The host cell of claim 23 wherein said protein is membrane IgE.
25. (currently amended) The host cell of claim ~~22-24~~ 22 further comprising coding sequence encoding of at least one non-IgE helper T cell epitope.

26. (original) The host cell of claim 25 wherein the coding sequence encoding of at least one non-IgE helper T cell epitope encodes tetanus toxoid Th epitope.
27. (currently amended) The host cell of ~~claims 22-26~~ claim 22 wherein said nucleic acid molecule is a plasmid.
28. (currently amended) A method of producing a protein comprising at least one epitope of membrane IgE and being free of epitopes of serum IgE comprising culturing a host cell of ~~claims 22-27~~ claim 22 and isolating said protein expressed thereby.
29. (original) The method of claim 28 wherein the protein is isolated using antibodies that specifically bind to said protein.
30. (currently amended) Antibodies that specifically bind to a protein of ~~claims 11-14~~ claim 11.
31. (original) The antibodies of claim 30 wherein said antibodies are Mabs, humanized Mabs, human antibodies, or Fab or (Fab)₂ thereof